

REMARKS

Claims 1, 2, 4, 8, 13, 14, 17-21, 26, and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Erchak et al., US 6,831,302 (hereinafter “Erchak”). Claims 3, 5-7, 9-12, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erchak. Applicants intend to submit an appropriate declaration to establish invention of the subject matter of any rejected claim prior to the effective date of Erchak, once the other prior art rejections made by the Examiner are overcome.

Claims 1-28, 32, 33, and 38 are rejected under 35 U.S.C. 103(a) as obvious over Scherer et al. in view of Lester and Lee et al. Applicants respectfully traverse the rejection.

Claim 1 is amended to recite “the photonic crystal structure is configured such that greater than 50% of radiation exiting the device is emitted in an exit cone defined by an angle of 45 degrees to an axis normal to a surface of the device.” A similar limitation was previously recited in canceled claim 7.

The rejection has pointed to no such teaching in any of Scherer et al., Lester, or Lee et al.

The rejection of claim 7 over Scherer et al., Lester, and Lee et al. states “The ‘798 reference [Scherer] discloses . . . intended use of the output light as recited in claim 7.” The rejection provides no citation to Scherer. Applicants note that claim 1, as amended, recites that the photonic crystal structure is configured to produce the recited radiation pattern. As such, the above-quoted element of claim 1 is a structural element, not a statement of intended use of the output light.

Since the rejection has failed to identify any teaching in Scherer et al., Lester, and Lee et al. of the above-quoted element of claim 1, claim 1 is allowable over the combination of references. Claims 2-6, 8-28, 32, 33, and 38 depend from claim 1 and are therefore allowable over the combination of references for at least the same reasons as claim 1.

Claims 1-16, 21, 26-28, 32, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joannopoulos et al., US 5,955,749 “in view of availability of III-nitride semiconducting material, for example disclosed in U.S. Patent Application Publication 20040165850,” further in view of Lee et al. Applicants respectfully traverse the rejection.

Claim 1 is amended to recite “the photonic crystal structure is configured such that greater than 50% of radiation exiting the device is emitted in an exit cone defined by an angle of 45 degrees to an axis normal to a surface of the device.” A similar limitation was previously recited in canceled claim 7.

The rejection has pointed to no such teaching in any of Joannopoulos et al., US 2004/0165840, or Lee et al.

The rejection of claim 7 over Joannopoulos et al., US 2004/0165840, and Lee et al. states “The ‘749 reference [Joannopoulos] . . . further teaches . . . although not discloses, intended use of the output light as recited in claim 7.” The rejection provides no citation to Joannopoulos, and in fact admits that the limitations of claim 7 are not disclosed. Applicants note that claim 1, as amended, recites that the photonic crystal structure is configured to produce the recited radiation pattern. As such, the above-quoted element of claim 1 is a structural element, not a statement of intended use of the output light.

Since the rejection has failed to identify any teaching in Joannopoulos et al., US 2004/0165840, and Lee et al. of the above-quoted element of claim 1, claim 1 is allowable over the combination of references. Claims 2-6, 8-16, 21, 26-28, 32, 33, and 38 depend from claim 1 and are therefore allowable over the combination of references for at least the same reasons as claim 1.

In view of the above arguments, Applicants respectfully request allowance of all pending claims. Should the Examiner have any questions, the Examiner is invited to call the undersigned at (408) 382-0480.

Respectfully submitted,

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